IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Frederick William Strahm et al.	Art Unit	: 2154
Assignee	: Intel Corp.	Examiner	: Ashokkumar B. Patel
Serial No.	: 09/811,161	Conf. No.	: 5789
Filed	: March 16, 2001		
Title	: NETWORK COMMUNICATION		

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Commissioner for Patents
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REPLY TO ACTION OF APRIL 11, 2006

In reply to the Office Action of April 11, 2006, please consider the following remarks.

Independent Claims

The claims are rejected as anticipated by Doviak et al. (U.S. 6,198,920). However, Doviak fails to teach or suggest that the active connection uses the information exchange protocol established for the first connection, as recited in independent claims 1, 7, 19, 23, and 28.

Doviak does not appear to disclose any relationship between the information exchange protocol used by the first connection with the server and the protocol used by other active connections with the server. The Office Action at page 4 alleges that this limitation is taught col. 36, lines 26-34 of Doviak:

> The process of the Decision process 206 checking the User Configuration 208 and the Network Availability 210 continues indefinitely, and is described in detail in FIGS. 33-36. Generally, the process helps to guarantee that the mobile user always has access to a Network for sending and receiving data. This process also allows what is known now as "seamless roaming". This means that the mobile user can move between Networks and continue to have reliable data transmission on the different Networks.

Although this passage describe connection switching as "seamless" to a user, that does not mean that the new connection uses the information exchange protocol used by the first connection with the server. A change in connection could be "seamless" because the device begins communicating using a new and different information exchange protocol on a new connection with the server, if the user is simply unaware of the switch.

In fact, Doviak mentions, for example, at col. 31, lines 9-19, that "a variety of protocols" are used and that "protocol translation" should be used. At col. 33, lines 14-40, Doviak discusses "very different" protocols that are "incompatible with each other." (lns. 34-35, in particular). Hence, these disclosed embodiments relate to using *different* (indeed, "*very different*") information exchange protocols for each of the connections (apparently to create "seamless roaming"). Thus, Doviak teaches that *different* protocols are used when a second connection is made the active connection. In contrast, independent claims 1, 7, 19, 23, and 28 refer to using the *same* information exchange protocols for a second active connection as the first connection. Accordingly, there can be no anticipation here.

Likewise, in the method of claim 11, information that is configured for the information exchange protocol that was established for the first connection is communicated using the active connection. Again, Doviak does not teach that a second active connection uses information that is configured for the information exchange protocol that was established for the first connection.

In claim 45, the same network, security, and compression protocols and parameters are used for information exchange by the active connection as for the first connection. Doviak also does not teach using the same network, security, and compression protocols and parameters. Doviak does not even mention compression, and therefore cannot disclose using the same compression protocols and parameters.

Thus seen, Doviak cannot anticipate independent claims 1, 7, 11, 19, 23, 28, 45, and claims dependent therefrom.

Claim 5

Claim 5 refers to a method in which two or more connections are selected as the active connection. The Office Action at page 5 alleges that Doviak at col. 34, lns. 37-55 teaches the limitations of claim 5. However, nothing in this passage appears to refer to "two or more" connections that are selected as the active connection. The passage refers to the "next Network," suggesting that a single connection (i.e., the connection to the "next Network") is selected as the active connection. Accordingly, this deficiency of Doviak is an additional reason why Doviak cannot anticipate claim 5.

Claim 7

Claim 7 refers to opening a second connection and then monitoring the connections for a parameter selected from the group consisting of transmittal rate, latency, and cost of transmittal. The active connection is reselected to optimize the parameter. Doviak does not describe opening a second connection before evaluating the parameter to make a decision to use the second connection as the active connection. Rather Doviak teaches monitoring the first connection and subsequently deciding to open the second connection based on the monitoring. Thus, in Doviak, the second connection is opened *after* the decision to switch to a second connection is made. See, e.g., col. 35, ln 57 – col. 36, ln. 5, of Doviak:

> The Decision process 206 continuously examines the User Configured parameters in the user configuration block 208, to determine the next Network to use, in case the current Network becomes unavailable to send or receive data. Such an unavailability may arise because the remote user (and consequently the Router 200) has moved beyond coverage of the Network, or because a problem has occurred with the current Network or the Network Interface 214.
>
> ***After* the Decision process** 206 has determined the next Network to use, the decision process 206 queries the Network Availability 210. If the next Network is available, then the Decision process 206 updates the routing tables in the Router Core 204. The Router Core 204 ***will then actuate the Switch 212 to physically connect the next Network*** as the current Network.

(emphasis added). Note in particular, that the Router Core 204 only physically connects to the "next Network" *after* "the decision process 206." Clearly Doviak teaches opening the second connection *after* the decision to switch to a second connection. In contrast, in the method of claim 7, the second connection is opened *before* any decision to switch connection is made. While the first and second connections are open, the active connection is monitored and then a connection is reselected. Besides failing to anticipate the base claim, because Doviak teaches opening the second connection *after* the decision to switch connections – rather than *before* – it cannot anticipate the method of claim 7.

Claim 3

Claim 3 refers to a method in which the second connection is opened prior to establishing the information exchange protocol, namely the same information exchanged protocol that is used for the first connection and then later for the second connection when the second connection is selected as the active connection. The Office Action at page 4 alleges that Doviak at col. 36, lns. 26-34 teaches the limitations of claim 3, but, besides failing to anticipate the base claim, Doviak does not teach or suggest that the second connection is opened prior to establishing the information exchange protocol of the first connection. In fact, at col. 35, ln. 57 – col. 36, ln. 5 – the passage quoted above – Doviak teaches that the second connection is opened *after* communication on the first connection and hence *after* the information exchange protocol for the first connection is established.

Claims 39 and 41

Claims 39 and 41 refer to the method of claim 1 in which the device retains outgoing information until reception is acknowledged and in which the device monitors a buffer that retains outgoing information to determine whether to transmit additional outgoing information, respectively. Page 11 of the Action alleges that col. 31, lns 9-19 of Doviak teach these limitations. This passage from Doviak is reproduced below:

> Typically the device or Application 52 sends and receives data using a variety of protocols (e.g., Internet Protocol (IP)/transparent (via MDC 54)/ack-nack, etc.). The use of a variety of protocols provides for open transport of data throughout many networks, and in particular, networks which support open standards such as IP. However, many proprietary networks which require interface and/or protocol translation remain in use. In the Router 200 of the present embodiment, the function of interfacing with networks and protocol translation may be performed by the Network Interfaces 214A-D.

However, nothing in this passage mentions retaining outgoing information until reception is acknowledged or monitoring a buffer to determine whether to transmit additional outgoing information. Accordingly, this is an additional reason that Doviak cannot anticipate these claims.

Gopalakrishna

The Office Action cites Gopalakrishna for teaching aggregated information from more than one application. Page 13 of the Action in particular alleges that Gopalakrishna teaches that the extent of aggregation for each application in the packets that include aggregated information for more than one application is dependent on an indicator of priority for information exchange associated with each application at col. 6, lns. 34-44 of Gopalakrishna. This section of the reference is reproduced below with the emphasis used in the Action:

> An exemplary data structure of the TLPDU 210 is shown in more detail in FIG. 4. The TLPDU 210 contains a field 222 for storing one or more flags such as a request type flag. Also, the TLPDU 210 contains a field 224 for storing a session number or client identifier. A field 226 stores packet sequence number information, while a field 228 stores the TLPDU size information. The optional field 226 is useful in reassembling the packets into a predetermined sequence, when more than one transport is used. The field 228 provides more information on the TLPDU size.

As described, the data structure TLPDU 210 includes a field for storing one or more flags, a session number or client identifier, packet sequence number information, and size information. None of these fields appear to be an indicator of priority. In any event, claim 10 does not require a datastructure that has a field for an indicator of priority. The point is that the cited passage is not even discussing indicators of priority for information exchange.

Moreover, neither this passage nor the remainder of Gopalakrishna appears to teach controlling the extent of aggregation of an application based on an indicator of priority for information exchange. For example, at col. 5, lns 7-17:

> Once the connections are established, data packets are sent from sessions on the source system 110 to sessions on the target system 111. The source system 110 receives the data packets and multiplexes the data packets into an aggregated packet, which can be communicated with minimal transmission overhead (step 102). The aggregated packet contains a plurality of data packets, as well as information needed to demultiplex the aggregated packet at the target system 111. In the embodiment of FIG. 1, the aggregated packets are then sent from the source system 110 to the target system 111 using one or more operating system input/output calls (step 104). The aggregated packets are then distributed over a plurality of data frames and sent over a network to the target system 111.

This discussion makes no mention that information for different applications would be aggregated to different extents. Thus, Gopalakrishna does not teach the limitation of claim 10 among other things.

Conclusion

The Applicants respectfully submit that all claims are in condition for allowance, which action is expeditiously requested. The Applicants do not concede any positions of the Examiner that are not expressly addressed above, nor do the Applicants concede that there are not other good reasons for patentability of the presented claims or other claims.

Please apply any other charges required to maintain the pendency of this application (except the issue fee) to deposit account 06-1050, referencing attorney docket number 10559-423001.

Respectfully submitted,

Date: 21 June 2006

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